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PATENT
Attorney Docket 044574-5061

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application:

John CARLSON *et al.*

Application No. 09/491,577

Filed: January 25, 2000

For: *DROSOPHILA* ODORANT RECEPTORS (Amended)

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) Group Art Unit: 1646

)
) Examiner: Joseph Murphy

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AMENDMENT AND RESPONSE UNDER 37 C.F.R. 1.114

This Amendment is filed in response to the Advisory Action dated September 5, 2002
(Paper No. 17).

Please amend this application as follows:

In the claims:

Please replace claims 27, 43 and 44 with the following amended claims 27, 43 and 44:

27. (Amended) An isolated nucleic acid molecule that encodes the amino acid sequence of a *Drosophila* Odorant Receptor protein or fragment thereof, wherein the nucleic acid molecule comprises:

(i) nucleotides of SEQ ID NO: 31 which encode the amino acids which comprise the third extracellular domain;

(ii) nucleotides of SEQ ID NO: 31 which encode the amino acids which comprise the fourth extracellular domain; and

(iii) nucleotides of SEQ ID NO: 31 which encode the amino acids which comprise the fourth intracellular domain;

wherein the nucleic acid molecule encodes a protein or fragment thereof which causes the firing of an olfactory neuron when stimulated.